PATENT COOPERATION TREATY

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY To: **PCT** STEVEN W. STEWART DIGIMARC CORPORATION 19801 SW 72ND AVE. SUITE 100 TUALATIN, OR 97062 WRITTEN OPINION (PCT Rule 66) 18 MAR 2004 Date of Mailing (day/month/year) REPLY DUE Applicant's or agent's file reference within 2 months/days from the above date of mailing P0565 International filing date (day/month/year) Priority date (day/month/year) International application No. 22 December 2000 (22.12.2000) 21 December 2001 (21.12.2001) PCT/US01/50483 International Patent Classification (IPC) or both national classification and IPC IPC(7): G06K 19/06 and US Cl.: 235/492 Applicant DIGIMARC ID SYSTEMS, LLC This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority. This opinion contains indications relating to the following items: Basis of the opinion H **Priority** Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Ш Lack of unity of invention ΙV Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement Certain documents cited VΙ VII Certain defects in the international application Certain observations on the international application VIII The applicant is hereby invited to reply to this opinion. See the time limit indicated above. The applicant may, before the expiration of that time limit, request When? this Authority to grant an extension. See rule 66.2(d). By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. How? For the form and the language of the amendments, see Rules 66.8 and 66.9. For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner, see Rule 66.6 If no reply is filed, the international preliminary examination report will be established on the basis of this opinion. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 22 April 2003 (22.04.2003) Name and mailing address of the IPEA/US Authorized officer. Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Telephone No. (703) 308 0956 Facsimile No. (703)305-3230

Form PCT/IPEA/408 (cover sheet)(July 1998)

International application No.

PCT/US01/50483

I.	Basi	s of the opinion					
1.	With	regard to the elements of the international application:*					
	\boxtimes	the international application as originally filed					
	\boxtimes	the description:					
		pages 1-11, as originally filed					
		pages NONE , filed with the demand					
		pages NONE , filed with the letter of					
	\boxtimes	the claims:					
	_	pages 12 and 13 , as originally filed					
		pages NONE , as amended (together with any statement) under Article 19 pages NONE , filed with the demand					
		pages NONE , filed with the demand pages NONE , filed with the letter of					
	\boxtimes	the drawings:					
		pages 1-2, as originally filed pages NONE, filed with the demand					
		pages NONE , filed with the letter of					
		the sequence listing part of the description:					
		pages NONE , as originally filed pages NONE , filed with the demand					
		pages NONE , filed with the letter of					
2.	With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language which is						
		the language of a translation furnished for the purposes of international search (under Rule23.1(b)).					
	\sqcap	the language of publication of the international application (under Rule 48.3(b)).					
		the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).					
3.	With opin	h regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written alone was drawn on the basis of the sequence listing:					
		contained in the international application in printed form.					
	\sqcap	filed together with the international application in computer readable form.					
	\sqcap	furnished subsequently to this Authority in written form.					
	furnished subsequently to this Authority in computer readable form.						
	\sqcap	The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the					
	international application as filed has been furnished.						
		The statement that the information recorded in computer readable form is identical to the written sequence listing					
		has been furnished.					
4.	\boxtimes	The amendments have resulted in the cancellation of:					
		the description, pages none					
		the claims, Nos. none					
		the drawings, sheets/fig none					
5.		This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go					
		beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).					
* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."							

International application No. PCT/US01/50483

citations and explanations supporting suc 1. STATEMENT			
Novelty (N)	Claims	NONE	YES
• . ,	Claims	1-13	NO
Inventive Step (IS)	Claims	NONE	YES
· · · · · · · · · · · · · · · · · · ·	Claims	1-13	NO
Industrial Applicability (IA)	Claims	1-13	YES
	Claims	NONE	NO
2. CITATIONS AND EXPLANATIONS Claims 1-13 lack an inventive step under PCT Article Leighton discloses a circuit card 10 with a core 33, does not disclose the laminate layer is a polyolefin.	bottom and top	laminate layers 38, a circuit 22 ai	nd an antenna coil 20. Leighton

Leighton discloses a circuit card 10 with a core 33, bottom and toplaminate layers 38, a circuit 22 and an antenna coil 20. Leighton does not disclose the laminate layer is a polyolefin. JP 11259620A discloses a card with a protective layer, which may be made of polyolefin. Leighton and JP 11259620A do not disclose that the core is also made of a polyolefin. However, as seen in JP 11259620A the use of polyolefin in circuit cards is old and well known. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a polyolefin laminate and core in the card of Leighton to increase the durability due to the inherent nature of the polyolefin substance and the adhesion properties of the multiple polyolefin surfaces. Leighton and JP 11259620A do not disclose the image surface. However, images on circuit cards, such as ID cards, printed in many ways including thermal printing and layering are old and well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an image on one of the surfaces of Leighton, as this would allow for positive identification of the user and bearer of the card.

Claims 1-13 meet the criteria set out in PCT Article 33(4), because the invention is useful to the industry	ıry.
NEW CITATIONS	
IP 11259620 A (Unknown) 24 September 1999 (24/09/1999), see translated passage.	

International application No.

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VI. Certain document cited

1. Certain published documents (Rule 70.10)

Application No
<u>Patent No.</u>
US 6,478,228 B1
US 2003/0038174 A1
US 2002/0070280 A1
US 2001/0002035 A1

Publication Date (day/month/year)
12 November 2002 (12.11.2002)
27 February 2003 (27.02.2003)
13 June 2002 (13.06.2002)

31 May 2001 (31.05.2001)

Filing Date (day/month/year)
22 December 1997 (22.12.1997)
22 December 2000 (22.12.2000)
22 December 1997 (22.12.1997)
29 November 2000 (29.11.2000)

Priority Date (valid claim)
(day/month/year)
27 December 1996 (27.12.1996)
None

27 December 1996 (27.12.1996) 29 November 1999 (29.11.1999)

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure (day/month/year)

Date of written disclosure referring to non-written disclosure (day/month/year)

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Supplemental Box (To be used when the space in any of the preceding boxes is not sufficient)								
	TIME LIMIT: The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.							

" INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Internation No. PCT/US01/50483

YES

NO

V.	Reasoned statement under Rule 66.2(a) citations and explanations supporting statement	d to novelty, inventive step	inventive step or industrial applicability;	
1.	STATEMENT			
	Novelty (N)	Claims	NONE	YES
		Claims	1-13	NO
	Inventive Step (IS)	Claims	NONE	YES
		Claims	1-13	NO
	Industrial Applicability (IA)	Claims	1-13	VEC

2. CITATIONS AND EXPLANATIONS

Claims 1-13 lack an inventive step under PCT Article 33(3) as being obvious over Leighton US 6,036,099 in view of JP 11259620A. Leighton discloses a circuit card 10 with a core 33, bottom and toplaminate layers 38, a circuit 22 and an antenna coil 20. Leighton does not disclose the laminate layer is a polyolefin. JP 11259620A discloses a card with a protective layer, which may be made of polyolefin. Leighton and JP 11259620A do not disclose that the core is also made of a polyolefin. However, as seen in JP 11259620A the use of polyolefin in circuit cards is old and well known. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a polyolefin laminate and core in the card of Leighton to increase the durability due to the inherent nature of the polyolefin substance and the adhesion properties of the multiple polyolefin surfaces. Leighton and JP 11259620A do not disclose the image surface. However, images on circuit cards, such as ID cards, printed in many ways including thermal printing and layering are old and well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an image on one of the surfaces of Leighton, as this would allow for positive identification of the user and bearer of the card.

Claims 1-13

Claims NONE